CLAIMS

1/ A sensor for measuring a physical parameter of a fluid, in particular for measuring total air temperature, the sensor comprising:

· a fluid intake (1) fitted to a streamlined body (2);

· a duct provided in said streamlined body (2) to enable fluid flow, said duct communicating with said fluid intake; and

· a sensing element disposed inside said duct;

the sensor being characterized in that said fluid intake (2) extends with a longitudinal axis (A) inclined relative to the fluid flow in a direction other than perpendicularly relative to said fluid flow.

2/ A sensor according to claim 1, characterized in that it comprises a fixing flange (11) having a bearing surface defining a fixing plane for the sensor, wherein the streamlined body (2) is inclined relative to the fixing plane and has a longitudinal axis extending other than perpendicular relative to said plane.

3/ A sensor according to any preceding claim, characterized in that the angle between the longitudinal axis (A) of the streamlined body (2) and the direction perpendicular to the fluid flow and/or to the fixing plane lies substantially in the range 5° to 15°.

4/ A sensor according to any preceding claim, characterized in that the fluid intake (1) presents an inside section defined by two substantially plane surfaces (1b, 1c) extending facing each other, and interconnected by surfaces of rounded shape.

5/ A sensor according to any preceding claim, characterized in that the fluid intake (1) presents an inside section defined by at least one plane surface (1b) which communicates with a chamber (7) that opens to the outside and that constitutes a boundary layer suction chamber, said plane surface (1b) presenting for this purpose a plurality of suction slots (12) extending transversely relative to the flow direction.

6/ A sensor according to any preceding claim, characterized in that the fluid intake (1) and the interior duct (3) consist of a single-piece.

7/ A sensor according to any preceding claim, characterized in that it comprises a boundary layer suction chamber (7) defined between a wall (1b,1c) delimiting the fluid intake on one hand, and by a plane wall extending therefrom on the other hand, and in that the latter is inclined relative to the fluid flow direction.

8/ A sensor according to any preceding claim, characterized in that the streamlined body (2) and the fixing flange consist of a single-piece.

9/ A sensor according to any preceding claim, characterized in that the sensing element (9) comprises a tube in ceramics and a support mandrel.

10/ A sensor according to claim 9, characterized in that the support mandrel is made of a thermally insulating ceramic.

11/ A sensor according to any preceding claim, characterized in that an element (14) forming a thermal barrier is interposed between the streamlined body (2) and the sensing element.